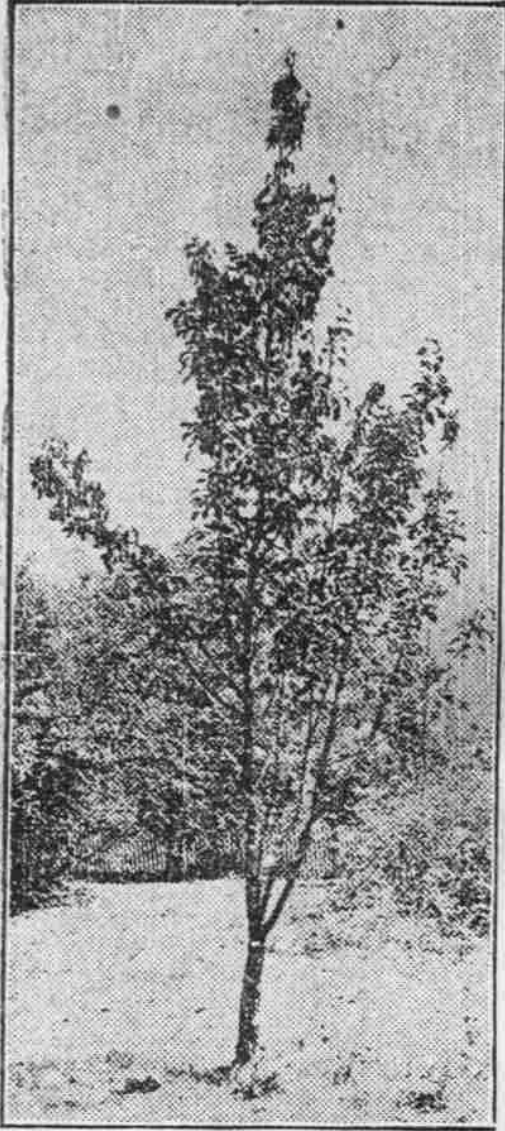


PEAR BLIGHT VERY DESTRUCTIVE ATTACKS LIMBS OR BLOSSOMS

Disease Peculiar to the Pomaceous Fruits of America—Blight Usually Attracts Especial Attention During the Early Spring and After the Blooming Period

(J. H. Carmody, Horticultural Department, Kentucky Experiment Station.)

Pear blight is a disease peculiar to the pomaceous fruits of America. It is most destructive to the pear, quince, and apple. In some instances it has been known to attack the plum. Cultivated plants are more liable to attack although mountain ash and wild species of the apple often serve as host plants.



A Pear Tree Affected With Fire Blight—Note the Topmost Twig.

The disease may attack the limbs, blossoms, or the fruit of the tree. In advanced cases all three may be diseased at the same time. However, it is generally noticed on the young succulent twig growth, hence the origin of the term "twig blight." Other names sometimes applied are fire blight, canker, blossom blight and several others.

Blight usually attracts especial attention early in the spring shortly

after the blooming period. It is first noticed when the leaf growth on the tips of the younger branches begins to turn brown and later on this is followed by blackened tufts of leaves all over the tree. If left unmolested the whole limb and even the trunk of the tree may become infected. An infallible guide for determining if a tree is affected with blight is to notice whether or not the leaves remain during the winter. No other disease of the pomaceous fruits is characterized by the leaves clinging to the branches during the dormant season.

Fire blight is a bacterial disease. The bacteria remain alive during the winter in cankered areas on the trunks and limbs of trees previously affected. As soon as the weather begins to warm these organisms become active and multiply very rapidly, gradually spreading all the while into healthy bark and wood tissue. Often during damp, warm weather these cankered areas or holdovers as they are called break open and exude a sweet gummy substance that carries with it millions of the small organisms. Insects, especially wasps and bees are attracted by this exudate and become smeared by it. Later on they visit the flowers of the tree thus carrying the dangerous organisms where they will do the most harm. In a short time the blossoms begin to show signs of blight and later on affected twigs will also be noticed.

Since the organism causing pear blight works within the host it is very evident that an external application of a fungicide or an insecticide would be effectual. The commercial preparations that are introduced into the sap have not proven effectual as yet. In fact harm has often resulted from their use because the injury made by the insertion often serves as a means of entrance for the harmful bacteria.

The most effectual way to control the disease is to keep a strict watch on the orchard at all times, especially during the growing season, and remove all diseased branches as soon as they are noticed. Also inspect the orchard during the winter and early spring for the cankers and remove them before the bacteria they contain becomes active. In order to hinder the disease from getting down on the trunk and main limbs it is a good plan to rub off all the blossoms, fruit spurs, and water sprouts from the larger branches, as they start. This will be a great aid in the prevention of body cankers.

SEX SECRECY PERIL

School Conference Speaker Advocates Education as Cure.

See the Religious Aspect and Declares That the Will to Do the Right Should Go With the Knowledge of the Right.

Buffalo, N. Y.—Representatives of the many boards of education, who were here gathering hints for the teaching of sex hygiene in the high schools at the International Congress on School Hygiene, displayed much interest in an address on "The Social Emergency," delivered by Dr. William T. Foster, president of Reed college, and also president of the Pacific Coast Federation for Sex Hygiene. Dr. Foster said in part:

"Many generations have joined in the 'conspiracy of silence' in matters pertaining to sex and reproduction. The result is widespread ignorance of matters of the utmost importance to the individual and the race—ignorance of which many good people are proud. During these generations in which the home, the church and the school have withheld the truth from young people, other agencies have been busy disseminating falsehoods. Having almost no opportunity to hear sex and matrimony discussed with reverence, our young people have almost invariably heard these subjects discussed with vulgarity.

"Partly as a result of all this has come the general acceptance of the double standard of morality which has bitterly condemned the girl—made her an outcast of society—and excused the boy for the same offence on the specious plea of physiological necessity.

With the sanction of this double standard, tacitly accepted by society, the majority of men have grown up in indulgence and have developed habits which are, or which they believe to be, beyond their control. Millions of men who recognize no law in sex life but their own appetites are thus contributed to us by the past. They are factors in the present situation and must be reckoned with.

"As a matter of fact the educational phases of social reform are of most immediate importance. Nothing can so profitably occupy the attention of social hygiene societies as the education of the public.

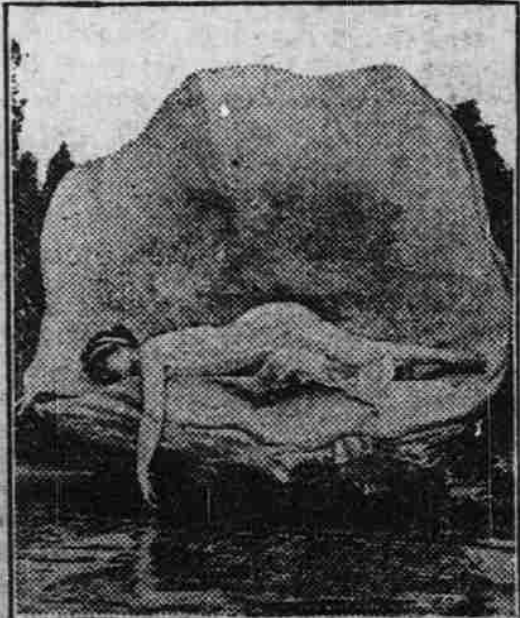
"No aspects are more important than those concerning morals and religion. The restraining fear of disease may and probably will be thrown off by science. Whether education in scientific aspects of the subject will do good or harm in a given case depends on the extent to which moral and religious ideals control the conduct of the individual. The inadequacy of mere information in matters of sex is painfully evident. To the knowledge of what is right must be added the will to do the right. All the other aspects of the social emergency treated with superhuman wisdom would still leave the greatest problem unsolved. As moral and religious instruction is the dominant educational need of the present generation, so the moral and religious aspects of sex problems transcend the others in importance.

"To attempt to deal with sex aspects of school hygiene, as though these problems were distinct from other phases of the social emergency is to invite failure from the start. The union of the American Federation for Sex Hygiene and the American Vigilance association is a step in the right direction, for it gives promise of seeing the social emergency clearly and seeing it whole."

NEW DIVERSION FOR NEWPORT

Miss Florence Fleming Noyes as "Sleeping Nalad" in Repose on Her Throne.

Newport.—On the beautiful estate of Commodore James at Newport, in the presence of the best known names of society, Miss Noyes, who is reviving the mythology of ancient Greece, in an effort to demonstrate the beauties of the stories of old, was borne into the presence of the critical



Miss Noyes as "Sleeping Nalad."

audience gathered 'neath the stars in the sunken garden on the estate of the commodore. Countless colored lights turned into the colors of the rainbow as water coming from numerous hidden sources fell on them, as Miss Noyes, by request of her consort, Neptune, performed the dance of the goddess of the sea.

Lamb vs. Bulldog.

Chicago.—Nicholas Murphy was haled into court because he kidnapped Mary Kilna's lamb and led it to various saloons, where he offered to smash it against any bulldog in town.

FORMER JUSTICE M'CALL AND FAMILY



Edward F. McCall, the Democratic candidate for mayor of New York, seen in the midst of his family at his summer home at East Hampton, Long Island. The McCall family, from left to right, are: Mr. McCall, with his hands on the shoulders of his daughter, Miss Alla Gaynor McCall. Seated next to him is his daughter, Miss Constance. Sidney McCall, a nephew, is standing by Mrs. McCall.

FILL THE CHURCHES

Clergymen, East and West, Tell How It Is Done.

Full Houses Rule in Seattle—Edifice Filled Eleven Years With Audiences Nearly Seventy Per Cent Men.

Chicago.—Every earnest pastor is anxious to know how successful ministers fill their churches. This question was put to several pastors of large churches by the Christian Herald, and the letters were all printed. They are so valuable and illuminating that a few of the replies are given here. The Rev. Dr. W. A. Andrews of Seattle gives the following reasons for his "full house." He says in part: "1. This church has been filled for nearly eleven years. Most of the time it is crowded and scores and hundreds have been turned away. The evening audiences number anywhere from 2,500 to 3,500. We can only seat about 3,000. The rest have to stand or be crowded out. The audience has in it from 55 to 70 per cent of men. 2. The results accomplished are entirely due to the operations of the Holy Spirit. We pray much, expect much and get much. 3. The pure, simple gospel is preached. Sin and Calvary are held up to the people. The vicarious atonement is emphasized; the sacrifice of Christ is presented daily; his deity and his mediatorial work are kept before the people. The whole gospel, and nothing but the gospel, is preached. 4. We make the gospel apply to every condition, circumstance and point of a man's life. We deal with his social, domestic, commercial, political and civic life, with the gospel, and only the gospel. 5. Every service is an evangelistic service. We never preach the gospel or finish a sermon without making an appeal for immediate decisions and confessions of Christ. At every service we urge men to accept Christ and join the church. 6. We do not have a sermonette after a long musical program of questionable ecclesiastical music. Every member of the choir must be used, but that program is kept in its minor place. The sermons are not dictated by the clock, nor are they closed at the suggestion of some man who would like to hurry through the service. Time enough is taken to present the case of sin, produce conviction in the hearer's mind and ask for the work of the Holy Spirit to produce conversions. 7. Every man, woman and child in this church is supposed to have something to do, and is required to do the thing assigned. If the churches of the country could be filled from their blight of materialism and could get from under the control of Godless trustees, indifferent and lukewarm church officers, and could be made to understand that it is their business as individual Christians to evangelize the world, the pews would be full and the pulpits would be on fire with the love of God and an undying passion for souls."

IRISH HAVE THE BEST TEETH

Scots Have the Worst, in the United Kingdom, So Authority Sol- emnly Says.

London.—The best teeth in the United Kingdom are the Irish, and the worst are the Scots, says Dr. Stewart, the medical officer for East Suffolk, who read a paper at the conference of the British Dental association held at Cambridge.

Dr. Stewart attributed the deterioration to the inordinate passion of the Scots children for sweets. Mr. Rhodes, the president of the association, suggested as another cause the increasing habit of making meals of tea and bread and butter and the decreasing consumption of oatmeal. Another authority thought that the deficiency of lime in Scottish water was a contributing factor.

The strong, white teeth of the Irishman, which are the admiration of the dentist when he looks at them and his despair when he has to extract one, are attributed to his simple vegetarian diet. He eats little meat and few sweets, and his food is of the kind that requires biting.

Governors Praise the Tango. Colorado Springs.—Well, the tango isn't such a naughty dance—if you want to take the opinion of a large number of governors for it. The state executives who were in convention here looked at a tango exhibition. They looked long and critically. At the conclusion of the dance there were encores. Also more encores. When the tangoers were too tired to respond to more encores, the governors gravely announced that "although we had nothing like that in our time, this tango dance looks very, very interesting." Some of them were even more explicit in their verbal praise.

Aged Woman Plays Tennis.

London.—Madame Deschamps, aged eighty-two, who has been visiting England for two months, plays lawn tennis, golf and other active games every day.

FIND DEAD WOMAN ON RAIL TRACKS

Body Discovered Mangled on Railroad Baffles Officials of Du Page County.

ONLY CLEW IS TORN LETTER

Mrs. Frank Pratt Tells of Seeing Tail Man and Companion, Who Answers Description of Victim—Sound Like Shot Heard.

Wheaton, Ill., Sept. 29.—The pretty woman victim of the Wayne, Illinois, murder was identified as Mrs. Mildred Allison of Chicago, a teacher of the tango. Positive evidence of murder was found when her body, which was mangled by train wheels, was examined and a bullet wound was found in her forehead.

Chicago, Sept. 29.—The body of a woman mangled beyond recognition was found on the right of way of the Elgin, Joliet & Eastern railway and eight sheets of Congress hotel note paper, closely written with pencil, torn to bits and scattered on the railroad right of way 15 feet from the point where the body was found were expected to give up the secret of the woman's strange death. The scraps of paper were found by Jeanette Conrad of Wayne, Ill. Wayne is a mile from the scene of the tragedy. Jeanette and eight other little girls searched for evidence and the Conrad girl pounced upon the torn letter. As soon as the Congress hotel letterhead was found the scraps were carried to Sheriff A. A. Kuhn, who set a deputy to work piecing them together.

Train Runs Over Body.

It was shortly after dark when Robert Rohel, an engineer, was about to run a freight train across the viaduct of the Aurora, Elgin and Chicago Electric railroad. In the gloom ahead he saw a dark patch on the track. Thinking it was a heap of cinders, he went ahead. Over the dark patch he ran at slow speed. He heard a slight sizzling sound and the faint odor of burning flesh reached his nostrils. He stopped the train and, leaping from the cab, ran back to find the body of a woman between the wheels of one of the cars. She was so badly mangled that recognition was impossible. The authorities at West Chicago were notified and the body was taken there. Dr. William Haft, the Du Page county coroner, immediately began an investigation to discover whether the woman was killed accidentally, committed suicide or was murdered.

Wayne Woman Gives Clue.

Mrs. Frank Pratt, a Wayne woman, returned home from Chicago, alighting from the interurban car at 7:45. At the same time a man and woman left the train. Mrs. Pratt intended calling her husband on the phone to come and get her. Seeing the man and woman going down the road in her direction, she followed them. When the couple reached the tracks of the E. J. & E. they turned off. Mrs. Pratt stood peering after them into the dark. Then she walked on alone. Suddenly she heard a sound from behind her. She thought it was a pistol shot and turned. She could hear nothing and saw nothing. She went home.

Thirty rods from where the couple turned onto the railroad track the body of the woman was found, crushed and mangled an hour later. Mrs. Pratt believes that the woman she saw and the woman whose body was found are the same. The description she gives of the woman she saw tallies with that given by the sheriff of the woman found dead.

"The woman wore a dark tailored suit," she said. "Her hat was a large one, turned up at the side. There was a huge feather in it. She was laughing and talking with the man when they left the train and when they walked down the road. I did not see the man closely."

Man Is Over Six Feet Tall. James Creighton, who met the 7:45 at night with a lantern, saw the man and woman descend. He described the man as tall and slim—six feet in height at least. He wore a gray hat, a dark suit and was smooth shaven. His description of the woman answers the description given by Mrs. Pratt.

CHRISTIAN SCIENTIST SLAIN

Mrs. R. P. Gay, a Practitioner in Los Angeles, Is Found Murdered in Her Office.

Los Angeles, Sept. 29.—Mrs. R. P. Gay, a Christian Science practitioner with a suite of offices in the H. W. Hellman building, was found murdered in her office. The woman had been brutally murdered and her brains had been beaten out with a ten-inch section of gas pipe. The police were unable to find any clew to the murderer or even suggest a motive. Mrs. Gay was one of the best known scientists in the state. Her home was at 1910 West Third street, Los Angeles.

Largest Silkmaker Is Dead.

Easton, Pa., Sept. 29.—Herman Simon, said to be the largest individual manufacturer of silks in the world, died in the office of his eastern mills. Several days ago Mr. Simon was stricken with heart trouble in his office and his condition was so grave that he could not be moved.

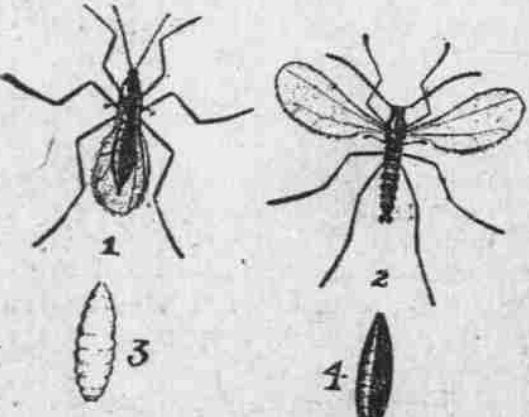
DISEASES OF THE WHEAT CROP

(Ralph Kenney, Department of Agronomy, Kentucky Experiment Station.)

It is very seldom that a crop of wheat is matured without being affected to some extent by some of the common diseases to which the crop is subject, as scab, rust and smut.

Scab is a fungus disease, which attacks the glumes or chaff of the wheat plant and results in shrunken kernels. The disease is identified by the pinkish spots produced at the base of glumes attacked.

There is no known treatment for this disease, except that it has been recommended that the stubble be burned if wheat is to follow a crop of wheat affected with scab.



Hessian Fly—1. Adult Female; 2. Adult Male; 3. Larva Before "Flaxseed;" 4. "Flaxseed" Stage.

The smuts are of two distinct kinds, viz: loose smut and stinking smut. The loss from loose smut does not vary so widely from year to year as does that from stinking smut, which may be very great one year and possibly negligible the following season. The smuts can be so easily and cheaply controlled that their presence in a field of wheat is a sure indication of carelessness on the part of the owner.

For loose smut of wheat, Formalin is not effective and the following treatment known as the modified hot water treatment is the more certain preventive.

Soak the seed wheat in cold water for a period of four hours and follow by immersing in hot water at a temperature of 29 degrees F. for 10 minutes. Thorough drying after this treatment is not injurious to germination. However, the treatment is apt to be slightly injurious and allowance for this must be made by sowing a slightly greater quantity of seed per acre. It is not advisable to treat all the seed sown in this manner. Treat only enough for the seed plot of an acre or so, and sow the main field from the product of this plot the following year.

Stinking smut or "bunt" of wheat may be prevented by either a hot water treatment, by Formalin or by the use of Bluestone.

1. Formalin Treatment:

(a) Dipping:—Procure from a drugist formalin which he guarantees to be a full 40 per cent solution of formaldehyde. Pour one pint of this into a fifty gallon barrel of water and stir thoroughly. Put the wheat to be treated into coarse burlap sacks, about one half bushel to a sack. Dip into the solution and keep there for about ten minutes or until thoroughly wet: drain off into the barrel and set aside for five to ten hours. Then empty out, spread in a thin layer and dry sufficiently to sow, or thoroughly dry and store in a perfectly cleaned place. If sown while damp allow a greater bulk of wheat to make up for the swollen grain.

(b) Sprinkling. Put the wheat to be treated on a clean floor or canvas and with a sprinkling can sprinkle the solution over the wheat shoveling over constantly until the grain is all wet. Shovel into a pile and cover with wet sacks or a good canvas and leave five to ten hours, when it should be treated as in the case of dipped wheat.

2. Bluestone Treatment.

Dissolve five pounds of Bluestone in 25 to 30 gallons of water and dip or sprinkle the wheat as in the case of the formalin treatment, but drain off well and partially dry at once so the solution will not soak into the grain. Probably the most serious of the insect pests affecting the wheat plant is the Hessian Fly.

A slight infestation this year may mean a much greater one next year unless precautions are taken this fall. Where it is present on a farm or in a neighborhood, the best means of keeping it in check is late sowing by all the farmers of that particular neighborhood. Wheat should not be sown before the fifth to the tenth of October in such cases, and if sown this late the early frosts usually prevent serious infestation by the fly.

This late sowing demands that the land be in splendid condition for quick growth of the wheat, and the extra time can profitably be spent in a more thorough working of the seed bed. In this way the bad effects of late sowing may be largely overcome.

KEEP UP FERTILITY.

The all-cotton farmer and the all-grain farmer must devise some way to keep up the fertility of the soil, and this can be done in no better manner than by devoting more acres to the production of live stock.